

ORM

Operational
Risk
Management

Introduction to ORM (Operational Risk Management)

What is ORM?

ORM is a decision making tool- used by people at all levels to increase operational effectiveness by anticipating hazards and reducing the potential for loss, thereby increasing the probability of a successful mission.

ORM process is proven to be mission supportive.

Moral responsibility to protect our Personnel

How ORM Works

ORM is a closed loop process of identifying and controlling hazards. It follows a 5-step sequence, is applied on one of three levels depending on the situation, and is guided by 4 principles.

Purpose of ORM

The purpose of ORM is to minimize risks to acceptable levels, proportional to mission accomplishment.

Goal Of ORM

The goal of ORM is to manage risk so the mission can be accomplished with the minimum amount of loss.

Benefits Of ORM

Applying the ORM process will reduce mishaps, lower injury and property damage costs, provide for more effective use of resources, improve training realism and effectiveness, and improve readiness.

Why ORM?

Because!

Unnecessary losses are detrimental to operational capability! Unnecessary mishaps cause unnecessary losses every day in the Business World. ORM will help reduce those losses.

We've Always Done It!

Management has always practiced risk management in their operational decision making process. However, the approach to risk, and the degree of success in dealing with it, has varied widely depending on the leader and his/her level of training and experience.

Leadership 101

There are two goals of leadership: Accomplish the mission, and welfare of the personnel. Leadership failures are often contributing causes of unnecessary mishaps, resulting in one or both of the goals not being accomplished.

The principles of ORM can be taught and effectively applied throughout the business world to enhance the decision-making (leadership capabilities of all personnel.

Common Mishap Causes

Individual failure. Personnel knows and is trained to standard but elects not to follow the standard (self-discipline).

Support Failure. Equipment/material improperly designed or not provided.

Leader Failure. Leader does not enforce known standard.

Training Failure. Personnel not trained to known standard (insufficient, incorrect, or no training on task).

Standards Failure. Standards/procedures not clear or practical or do not exist.

ORM Terms

Hazard

A condition with the potential to cause illness, injury, death, property damage, or mission degradation.

Cause

Something that produces an effect, result, or consequence.

The person, event, or condition responsible for an action or result.

Sample Hazards and Causes

Hazards	Causes
Operating Equipment	Operator error- Mechanical failure
Weather	LTA clothing- Limited visibility
Change	New hazards & reduced effectiveness of controls

A cause is more specific than a hazard. A method of clarifying if something is a hazard or a cause is to ask the question, “Is this specific enough to help identify a corrective control?” If the answer is ‘no’ it is a hazard, if the answer is ‘yes’ it is a cause. It is important to properly identify hazards and causes because there may be several causes associated with one hazard. If the more specific causes are not identified, necessary controls may be omitted resulting in the hazard not being eliminated or it’s risk inadequately reduced.

Risk

A possible loss expressed in terms of severity and probability.

Leaders can make better decisions once a hazard is converted to a risk.

Risk Assessment

The process of detecting hazards and assessing associated risks. Step 1 and Step 2 of ORM constituted a risk assessment.

ORM Terms (continued)

Severity

Expected consequence of an event in terms of degree of injury, illness, property damage, or other mission-impairing factor.

Controls

Actions taken to eliminate hazards or reduce their risk.

Three Types of Controls

Three types of controls can be used, in most effective to least effective order they are – Engineering controls, Administrative controls, & Personal Protective Equipment.

Engineering Controls

Controls that use engineering methods to reduce risk by Design, or Material Selection or Substitution.

When technically and economically feasible, engineering controls are the best to use because they usually eliminate the hazard. Their drawback is they may not be feasible in many cases.

Administrative Controls

Administrative controls reduce risk through specific administrative actions:

- Provide warnings, markings, placards, signs, & notices;
- Written policies, programs, instructions, & SOP's;
- Train Marines to recognize hazards & take proper action;
- Limit the number of personnel/equipment, or the time exposed to a hazard.

Administrative controls are effective in reducing risks when used properly.

Sample Administrative Controls

Rehearsals	Briefs	Graphic Control Measures
Ground guides	SOP's	Rest Plans
Traffic signs	Drills	Rules of engagement
Rest plans	Dispersion	Cover and Concealment
NVG's	MOS Prerequisites	

Personal Protective Equipment

Serves as a barrier between a person and a hazard.

PPE is the least effective type of control because it does not reduce the probability of a mishap occurring, it only reduces the severity when a mishap does occur. Use PPE when other controls do not reduce the risk to an acceptable level.

5 Steps of Performing ORM

5 Step Process

Memory Acronym- I AM IS

1. **I**dentify Hazards
2. **A**ssess Hazards
3. **M**ake Risk Decisions
4. **I**mplement Controls
5. **S**upervise

ORM in BAMCIS

The 5 Steps of ORM are performed within – not instead of BAMCIS. Anytime a new hazard is identified it triggers the remaining ORM steps.

Step 1 Identify Hazards

- Conduct an Operational Analysis
List major steps of the operation
- Conduct a Preliminary Hazard Analysis
List the hazards associated with each step
List the possible causes of the hazards

Step 2 Assess Hazards

- Determine degree of risk for each hazard in terms of severity and probability.

Use of a matrix is recommended but not required. A matrix provides a consistent framework for evaluation and shows the relative perceived risk between hazards and prioritizes which hazards to control first.

Any Matrix that supports the specific application may be used.

RAC Matrix		Mishap Probability			
		Likely	Probably	May	Unlikely
Hazard Severity	Critical	1	1	2	3
	Serious	1	2	3	4
	Moderate	2	3	4	5
	Minor	3	4	5	5

Risk Assessment Code (RAC)

1- Critical 2 – Serious 3 – Moderate 4 – Minor 5 – Negligible

5 Steps of Performing ORM (continued)

Hazard Severity

Critical – May cause death, loss of facility/asset, or grave damage to national interests.

Serious – May cause severe injury, illness, property damage; or damage to national or service interests.

Moderate – May cause minor injury, illness, property damage; or damage to national, service, or command interests.

Minor – Minimal threat.

Mishap Probability

Likely – Likely to occur immediately or in a short period of time. Expected to occur several times to an individual item or person, or continuously to a group.

Probably – Probably will occur in time. Reasonably expected to occur some time to an individual item or person, or continuously to a group.

May – May occur in time. Reasonably expected to occur some time to an individual item or person, or several times to a group.

Unlikely – Unlikely to occur.

Step 3 Make Risk Decisions

- Develop controls for each hazard to eliminate the hazard or reduce the risk until the Benefit > Risk.
 - Develop controls for the most serious hazards first! You may not have time to control every hazard – so control the worst hazards first.
- Determine residual risk.
 - Assess each hazard's risk again (step 2 repeated) with the controls in place to determine residual risk.
- Make Risk Decision – With the controls in place is the Benefit > the Risk?
 - Accept the risk if the Benefit > Risk
 - Communicate with higher authority if
 - Risk > Benefit
 - Risk exceeds the Commander's stated intent
 - Help is needed to implement controls

Step 4 Implement Controls

- Incorporate selected controls into:
 - SOP's, LOI's, Orders, Briefs, Training, and Rehearsals
- Communicate selected controls to the lowest level. Who will do what by when?
- Implementation goes wrong for the following reasons:
 - Wrong control for the problem
 - Operators dislike it
 - Leaders dislike it
 - It's too costly
 - It's overmatched by other priorities

5 Steps of Performing ORM (continued)

- It's misunderstood
- Nobody measures until it's too late

Step 5 Supervise

- Enforce standards and controls.
 - Ensure Marines are performing tasks to standard.
 - Ensure controls are in place and having the desired effect.
- Remain alert for changes and unexpected developments that require Time Critical or Deliberate ORM.
- Take corrective action when necessary.

4 Principles of Applying ORM

#1 Accept risk when the Benefit>Risk.

- Risk is inherent in the nature of military action.
- Leaders who are in the risk-taking business must be top-quality risk managers.
- Risk is usually proportional to gain.
- You cannot eliminate all risk

#2 Accept no unnecessary risk.

- An unnecessary risk is any risk that, if taken, will not contribute meaningfully to mission accomplishment.
- Leaders who accept unnecessary risks are gambling with the lives of their Personnel – for nothing.
- The gambler doesn't know what will happen; the risk -managing leader can reasonably predict what the outcome will be.

#3 Anticipate and manage risks by planning.

- Risks are more easily controlled when identified in planning because more time, assets, and options are available to deal with the risk.
- It improves efficiency and saves money if ORM is integrated early in the planning process. If risk controls are tacked on as an afterthought in training or in combat, they will probably fail.
- Proper Prior Planning Prevents Poor Performance

#4 Make risk decisions at the right level.

- The leader directly responsible for the operation makes risk decisions.
- If Risk > Benefit; goes beyond the Supervisors stated intent; or help is needed to implement controls – communicate with higher authority.

Clarence S. Bletner
Command Safety OSH Manager

U.S. NAVY VR-53
(240) 857-2037
BLETNERCS@NAFWASH.NAVY.MIL
C3KC4@AOL.COM